

City of Morro Bay Preliminary Data Adequacy Review
For
Duke Energy Morro Bay Power Plant Project
99-AFC-006

Preliminary Supporting Technical Reports & Information

ARCH-A	Archaeology	Prepared by David Stone, M.A. Anthropology, S.A.I.C, Senior Project Manager
ARCH-B	Archaeology	Prepared by Tarren Collins, Counsel for San Luis Obispo County Northern Chumash Council.
TRANS-C	Transportation	Prepared by Steven Orosz, Registered Traffic Engineer, Pennfield & Smith, Inc. and reviewed by Steven Sylvester, Registered Engineer and City Engineer for the City of Morro Bay and Greg Fuz, Associate Planner for the City of Morro Bay.
ECON-D	Socio-Economics	Prepared by Dr. Robert Niehaus, Principal Economist, RDN, Inc.
VISUAL-E	Visual Impact Assessment (Technical Adequacy)	Prepared by John Paez, Manager of CAD Simulations and Paul Edwards, Senior Coastal Land Use Planner, FORMA Systems, Inc
VISUAL-F	Visual Impact Assessment (Technical Adequacy & Alternative Methods)	Prepared by Dr. Gary Clay, Assistant Professor of Landscape Architecture, California Polytechnic State University, San Luis Obispo
VIS/ECON-G	Integration of Visual and Socio-Economic Issues	(PENDING)
ALT-H	Alternatives Review	Prepared by: Greg Fuz, Associate Planner, City of Morro Bay
NOISE-I	Noise	Prepared by Bill Dohn, Acoustical Consultant
WATER-J	Water/Marine Resources	Prepared by John Chestnut, The Greenbelt Alliance
PUBSERV-K	Public Services	(PENDING)
LAND-L	Land Use Review	(PENDING)
PUBCOM-M	Public Comments from 9/23/99 City Workshop	Prepared by Melody Kreimes, Meeting Facilitator

SUMMARY OF KEY ARCHAEOLOGICAL DATA ADEQUACY CONCERNS

ON-SITE:

- ✓ INSUFFICIENT INFORMATION to evaluate potential for buried resources and understand potentially significant direct project impacts.
- ✓ INSUFFICIENT BACKGROUND RESEARCH to define the potential location of prehistoric settlement onsite which may now be buried and which may be affected by the project.
- ✓ INSUFFICIENT INFORMATION to evaluate potential for indirect impacts, such as illicit artifact collection, during construction.
- ✓ INSUFFICIENT INFORMATION to characterize the nature of dredge spoils that would be affected by the project on-site.
- ✓ INSUFFICIENT INFORMATION to describe, characterize, and evaluate the significance of past disturbance of unique cultural resources in connection with previous activities undertaken on the project site.
- ✓ INSUFFICIENT ANALYSIS of impacts and proposed mitigation.

OFF-SITE:

- ✓ INSUFFICIENT INFORMATION to evaluate the project's past, present and future contribution to potentially significant cumulative regional impacts on cultural resources
- ✓ INSUFFICIENT INFORMATION to evaluate the potentially significant direct and indirect effects of project development on Morro Rock as a unique cultural resource to native Americans.
- ✓ INSUFFICIENT ANALYSIS of impacts and proposed mitigation.

SUMMARY OF KEY VISUAL ASSESSMENT DATA ADEQUACY CONCERNS

- ✓ INSUFFICIENT INFORMATION AND ANALYSIS to evaluate the extent to which the blended panoramic photographs used to illustrate the computer simulations distort and overstate the field of view of the human eye and potentially understate statistical conclusions that relate to the size or percentage area of the photographs.
- ✓ INSUFFICIENT INFORMATION to evaluate the adequacy and accuracy of the visual assessment methodology:
 - The Original Unspliced 50mm Color Photographs Should Be Provided For Agency Review In Order To Determine How The Photographs Were Seamed Together To Create The KOP Panoramas.
 - CADD-Generated Wire-Frame (Transparent) Prints Of The Perspectives Are An Intermediate Step That Correspond To Each Of The Original Photographs And Lead To Each Of The KOP's Panoramas And Simulation Prints. Prints Of These Wire-Frames Should Be Provided For Agency Review To Confirm The Analysis.
 - A Birds-Eye View Or Orthogonal View Of The Entire Area Modeled In CADD, Including The 3-D Topographic Model And Architecture Should Be Provided For Agency Review TO Allow The Viewer To Understand The Amount Of Detail That Was Able To Be Matched Or Aligned With The Proposed And Existing Sites.
 - All Available Technical Information Should Be Provided To Allow The Agencies To Confirm The Existing Site Data Sources And Their Accuracy. For Example, Were The Key Features Used For Alignment Surveyed And/Or Were Their Heights And Masses Derived From As-Built Drawings?
 - All Assumptions Regarding Installation Site, Growth, And Maturity Height Of Trees And Shrubs Used In The Computer Model Should Be Explained In The AFC. A Detailed Planting Plan Should Also Be Included.
 - Insufficient Information To Determine The Significance Of The One Meter Degree Of Error Noted In The Visual Assessment Report
 - A Physical Reference Such As A 145-Foot-High Balloon Should Be Floated From The Location Of The New Stacks, And Included Within A Wire Frame View Used In The Analysis To Illustrate To The Agencies The Consistency Between The Computer Model And Physical World.
 - Address how the significance of potential errors and/or exercise of any artistic license, within the visual assessment methodology can be substantially accentuated as the distance from the project site increases.
- ✓ INSUFFICIENT INFORMATION regarding the relative visual impacts of other feasible on-site alternatives which may reduce project impacts.
- ✓ INSUFFICIENT INFORMATION to evaluate the adequacy of proposed project design features such as color, landscaping, night lighting, etc.

SUMMARY OF KEY VISUAL ASSESSMENT DATA ADEQUACY CONCERNS

- ✓ INSUFFICIENT INFORMATION to understand the visual impacts of plumes from the project.
- ✓ INSUFFICIENT INFORMATION AND INADEQUATE PRESENTATION of data to allow views from KOP's to be compared accurately and objectively due to distractions within the photographs and in some cases blurred copies of the photographs. The agencies should be provided with one or more views in the visual analysis represented by purely digital means eliminating non-essential distractions as confirmation of the accuracy of the analysis.
- ✓ INSUFFICIENT INFORMATION to determine the extent of distortion due to the "stitching" of the various frames of photography into one panorama and the expected margin of error in the corresponding analyses which rely on measurements of these distorted photographs. (see KOP 10 merged utility wires as an example).
- ✓ INADEQUATE PRESENTATION OF INFORMATION in a manner which affects the perceived objectivity of the data:
 - Reduce/Eliminate Conclusions in Text---the agencies will determine the significance of project effects.
 - Reduce Width of Photographic Panoramas to approximate the true human field of view.
 - Reduce or Eliminate Unwarranted Numbers carried out to multiple decimal places.
- ✓ INADEQUATE SPECIFICATION OF SIGNIFICANCE CRITERIA. In particular, the change in qualitative appearance and width of the impact zone (i.e. locating a significant new visual element at a lower elevation and in a different location on the project site) from introduction of new visual elements into the scene (and the elimination of existing visual elements) needs to be addressed. The uniqueness of many views of the plant site must also be recognized and evaluated given the site location in the foreground of Morro Rock, a unique geologic, biological, cultural, historic and visual feature recognized and protected by law.
- ✓ INADEQUATE ANALYTICAL METHODOLOGY to determine the significance of visual impacts. The impact analysis in the AFC does not use the criteria suggested by the City. The analysis also does not take into consideration viewer response/reaction to the project in a scientifically defensible manner. The analysis does not explain the relative importance of each measured factor to the conclusions of the analysis. The conclusions of the analysis are generally not supported by the data provided in the AFC, i.e. 33 of 59 factors measured to evaluate changes in the KOP's show an increase in visual obtrusiveness as a result of the project. The analysis does not provide any supporting evidence for assuming that all physical changes within a visual scene can be given equal weight in reaching conclusions regarding the significance of the visual change. The AFC does not provide evidence to support a correlation between percentage levels of physical and perceptual change.

SUMMARY OF KEY VISUAL ASSESSMENT DATA ADEQUACY CONCERNS

- ✓ INADEQUATE KOP'S: The AFC does not include a KOP from Highway 41 in the vicinity of Hill Street to illustrate views of the site from this key entry corridor into the City. KOP # 12 at Ironwood and Highway 41 is not representative of the visual effects of the project in this entry corridor.
- ✓ INSUFFICIENT INFORMATION to evaluate the potentially significant direct and indirect effects of project development on Morro Rock as a unique visual resource to the State of California.
- ✓ INSUFFICIENT ANALYSIS OF IMPACTS AND PROPOSED MITIGATION.
- ✓ CITY TO PREPARE INDEPENDENT ANALYSIS: The City of Morro Bay should be permitted to conduct its own analysis to confirm the accuracy of the visualizations of the project from several key KOP's selected by the City using a City approved methodology and expert.
- ✓ CITY TO PREPARE INDEPENDENT SURVEY: The City of Morro Bay should also be allowed to conduct an independent survey of the reactions of affected groups and individuals to the proposed changes in the visual setting of the project site. This information would be developed using a City approved methodology and expert.

The AFC states: *"Visual impacts of the Project have been minimized by improvements to its design." "...the Project has been designed and positioned on the MBPP site to minimize height, bulk and views of the structures and, wherever possible, to improve views of Morro Rock, the ocean, the inlet and the bay."*

There is no substantial evidence to support this conclusion provided in the AFC. On-site alternatives which may have further reduced visual impacts were dismissed in the AFC without providing any supporting visual analysis to justify their elimination from consideration. Off-site alternatives which may further reduce visual impacts were not considered at all by the AFC. There is no specific information concerning the proposed colors of the project to allow an objective assessment of the conclusion stated above. There is no consideration of the cumulative visual effects of the project in reaching the proposed conclusion, i.e. the visual impacts of past (existing), present, and proposed facilities on the project site...individually, and in combination with any other relevant projects. 16 of 19 KOP's show increases in the horizontal field of view of the facility (using the results of the AFC analysis). 13 of these 16 KOP's show increases in horizontal field of view of 50% or greater compared to the pre-project condition. Only 2 KOP's show a change in background contrast with Morro Rock. Of these two KOP's, one shows a moderate reduction in contrast with Morro Rock and one shows a substantial increase in contrast with Morro Rock. The KOP which exhibits a substantial increase in contrast with Morro Rock is along Highway 41, along a corridor which leads to a key City entryway, and a location with very high viewer frequency. The KOP which shows a moderate, post-project reduction in contrast with Morro Rock, is from an area with relatively low viewer frequency and not within a corridor associated with a key City entryway. 33 of 59 measurements of visual change shown in the KOP's evaluated in the AFC demonstrate an increase in the obtrusiveness of the proposed facility over the pre-project condition. The average increase in obtrusiveness measured by the AFC in its evaluation of these 33 KOP's is 81%. The average improvement in views in the remaining 26 measurements is only 14%. This indicates that the overall magnitude of visual change as a result of the project would be substantially adverse compared to the pre-project condition.

The AFC states: *"The location also places the project partially behind existing buildings as viewed from the Embarcadero."*

The project as presented in the AFC would introduce views of the 2 new stacks into the most recognized scenic viewing site on the Embarcadero, Centennial Stairway (See KOP # 19). KOP's 5-9 and 18-19 which exemplify near to mid-field views of the project from various points at publicly accessible key visitor-serving recreational and tourist destinations surrounding the plant, ALL clearly show that the number of stacks at the facility is increasing from 3 to 4 as a result of the project. The number of plumes visible from these locations would also increase from 3 to 4. The visual change in these locations would also tend to be more obtrusive to viewers due to the increased horizontal field of view of the industrial facilities on the plant site as a result of the project, the substantial height difference between the existing and proposed stacks, the different colors, materials, shape, design and orientation of the new stacks compared to the existing stacks. The proposed partial dismantling of the existing plant (removal of one stack for units 1-2), proposed as a beneficial project design feature, is likely to adversely change the visual character of the existing power plant structure, considered a local landmark by many...while at the same time, calling attention to the new visual elements of the plant site because of the visual differences between the remaining existing and proposed facilities noted above.

The AFC states: *"Also, substantial landscaping and additional berms have been proposed to help screen views of the project."*

There is no specific information concerning the proposed project landscaping to support the conclusion stated above. Further, it is not known if any of the proposed landscaped buffers/berms are feasible without acquisition of adjacent lands. The extent of "vegetation management" which buffers and shields the plant site is not specifically explained; however it is stated that management could entail removal of substantial amounts of existing vegetation. The photo-simulations of the existing facility do not take into consideration the visual effects of any proposed "vegetation management." There is also no specific understanding of the length of time involved before any new or replacement vegetation will reach sufficient maturity to provide the implied level of visual buffering.

P. 6.13-6

The AFC lists several factors measured in the visual analysis.

There is no consideration in these factors of the visual uniqueness of views subject to this analysis. The visual setting for this project is unique within the State and perhaps the Nation. The plant site exists in the visual foreground of Morro Rock, a unique biological, geologic, cultural, historic, and visual feature given special protection through the City's certified Local Coastal Program. The plant site can be viewed from miles of the most scenic coastline in the County, including many miles of State Highway One, a State designated scenic highway. The existing plant itself is recognized as a unique local landmark and the effect of modifications to the existing plant on its local significance are not addressed. The quantitative factors listed in this section of the AFC also do not consider the area of any plumes from the facility in calculating area of change, skyline contrast or Morro Rock contrast. The measurement criteria omit calculation of intrusion into the visual backdrop of local hills and mountains for the physical structures and for the resulting plumes. The measurement criteria proposed in the AFC do not include any scientifically defensible method of identifying and evaluating viewer responses/reactions to the visual changes that would occur as a result of the project. Consequently, the past, present and future impact on the visual setting is substantially understated by the analysis.

P. 6.13-7

The AFC states: "...ratings for the relative degree of change was determined for each KOP considering the measurements above, and scored with the following ratings...."

There is no discussion concerning the relative weighting of the measurement factors referenced in this assessment. There is no discussion of how other factors such as distance, viewer frequency, duration of views, public vs private views, uniqueness of views, consistency with LORS, etc. are considered in evaluating change for each individual KOP. The results of incorporating these factors into an analysis of change at each KOP should properly come to a conclusion as to whether the change at each KOP is considered significant, rather than positive, neutral or negative as presented in the AFC. Agency decision makers will reach their own conclusions as to whether the project's effects are considered adverse, neutral or beneficial upon completion of the impact analysis and full consideration of public testimony. It is highly inappropriate to attempt to influence perceptions of visual significance through the AFC when an agency approved impact analysis has not yet been prepared.

P. 6.13-36

There does not appear to be any analysis of the project's consistency with State or County Scenic Highway policies or other visual resource protection policies even though the project would clearly be visible from a State designated scenic highway and from areas within unincorporated San Luis Obispo County. There also does not appear to be an analysis of the project's consistency with visual resource related policies of the California Coastal Act.

P. 6.13-39

The AFC mentions the issues of night lighting and plume visibility in a cursory manner. There does not appear to be a scientifically defensible analysis of the visual impacts of these project features.

P. 6.13-43

The AFC lists but does not use the visual resource assessment criteria provided to the applicant by City staff. These criteria are based on CEQA Guidelines criteria, generally accepted criteria adopted by local public agencies in the region, and applicable policies in the City's certified Local Coastal Plan and General Plan.

P. 6.13-49

The AFC does not provide detailed mapping showing the location of the area on the project site not designated for power plant facility use. Consequently, it is impossible to know whether the plant and related facilities are sited in accordance with Coastal Act requirements.

P. 6.13-51

The AFC does not provide information regarding the proposed colors of the facility. The AFC also does not provide a specific, detailed landscape plan including plant types, sizes, quantities, spacing, location, estimated maturity, etc. to allow for proper evaluation.

P. 6.13-52

The AFC does not explain or address the implications of "vegetation management" on the visual assessment.

P. 6.13-55

The AFC does not include a scientifically defensible assessment of the effects of night lighting at the facility.

P. 6.13-56

The AFC does not provide a scientifically defensible analysis of the visual effects of plumes from the project site.

P. 6.13-59

The AFC erroneously states that the project stacks are not visible from Highway 41.

P. 6.13-65

The AFC simulates the anticipated crown of a proposed treeline but provides no information as to the length of time before the vegetation will reach this level of maturity. The ongoing visual impacts until the vegetative screening reaches maturity are not addressed. While vegetation proposed to be planted to provide future visual buffering is modeled in the simulations, and vegetation proposed to be removed to provide off-setting improvements in views is also shown in the simulations, none of the photographs or simulations show the effective of the proposed vegetation "management" program along the Highway One corridor. This information should be provided to provide an accurate post-project understanding of visual effects.

P. 6.13-148

The table on this page classifies KOP's by viewing frequency. Viewing frequency at KOP's 1, 4, 6, 7, 9, and 18 should not be considered LOW. KOP # 1 is the highest, publicly accessible scenic outlook in the Morro Bay area with access by public trail through a public park. It is a well known local point of interest. KOP #4 is also at a public park, in a new residential subdivision, with connections to beach access and public trails. Upon full build-out of this development approximately 300 persons will reside within this development and use these facilities in addition to general public use. The site has one of the best public trail systems within the City. KOP #6 is a near view within the Morro Dunes RV park. The AFC states that 26,000 camp sites at this park are used every year. KOP #7 is a coastal access point and public parking area that is heavily used by residents and tourists on a year round basis for beach access. KOP #9 and 18 are also views from highly accessible public areas on the Embarcadero/bay waterfront.

P. 6.13-150

The AFC is ambiguous concerning the status of the tank farm decommissioning. The decommissioning is not proposed as

part of the AFC, and no local applications are on file for the decommissioning. Yet, the AFC mentions tank farm removal in several sections as if it is part of the project at this time. Explain why tank farm removal should not be part of the AFC at this time.

P. 6.13-154

This section of the AFC provides six factors which were considered in reaching the overall conclusions regarding the significance of the combined visual effects of the project. Factor no. 1 refers to the ratings for each KOP based on the measured factors presented in the AFC. As discussed above, the scope of these factors is not sufficiently broad. A number of key parameters is omitted. The accuracy of the measurements is in question as noted above. The sufficiency of the KOP's is lacking.

Factor no. 2 refers to the tendency for local weather conditions, i.e. fog, to partially mitigate the project's visual effects. This discussion does not consider that the adverse responses by individuals to any negative visual effects associated with the project exist in spite of the periodic occurrence of foggy conditions. Once an individual has reacted to the visual setting of the project site, and registered that reaction, the periodic blurring of the visual setting by fog will do little to change the individual's registered reaction to the visual appearance of the site. How many people may be negatively influenced from stopping in Morro Bay as a tourist destination or deterred from purchasing property or living in the community because of their reaction to the changed visual setting as a result of the project. The AFC does not address that question.

Factor no. 3 refers to the design features built into the project by the applicant to address visual effects. As noted in the comments above, most of these design features are too ambiguous and vague at this time to be given serious weight as an off-set to the project's visual effects. Colors are not specified. Landscaping is conceptual. Availability of adjacent lands for buffers is not addressed. Vague references to vegetation management do not enlighten. Preclusion of reasonable on-site alternatives for unsubstantiated economic reasons does not add credence to the AFC's contention that the proposed siting minimizes visual effects. There has been no effort at all to even address the effects of implementing the primary project design feature---removal of one of the existing stacks. The effect of removing one stack versus three stacks was not addressed. The visual disproportionality of removing one of the stacks was not addressed. The potential for the interruption in visual consistency from removal of one of the stacks to draw greater attention toward the site and the project was not addressed. The effect of removing a stack on the integrity of the existing plant as a local landmark was not addressed. The potential for reducing the height of all three stacks equally was also not addressed.

Factor no. 4 refers to the plumes from the new stacks. There is no reference in this discussion to a scientifically defensible analysis to confirm the conclusion that plumes will occur less frequently. There has been no effort to illustrate or simulate the plumes in any of the visual simulations. The fact that the project results in an increase in the overall number of plumes on the site is not addressed. The fact that the plumes will now occur at two different elevations is not addressed. The potential for the plumes to drift into the backdrop of Morro Rock, particularly when viewed from KOP #'s 10-11 and 14-15 is not addressed.

Factor no. 5 asserts that the project is in compliance with local policies and plans dealing with visual quality. Based on the insufficient information and analysis in the AFC it is not possible to come to a defensible conclusion regarding consistency with local requirements at this time. However, it is clear that the project is not consistent with the height limit for new development included within the M-2 district regulations in the City's Zoning Ordinance.

SUMMARY OF KEY NOISE RELATED DATA ADEQUACY CONCERNS

- ✓ INSUFFICIENT INFORMATION to evaluate the level of confidence (statistically) of the noise level predictions in the AFC and the potential variability of the noise predictions. This is a concern because several key sensitive receptor areas have predicted increases in ambient noise levels just below the threshold limits set by the California Energy Commission.
- ✓ INSUFFICIENT INFORMATION to determine whether the unique atmospheric conditions in Morro Bay were taken into consideration in the analysis.
- ✓ INSUFFICIENT INFORMATION to determine noise impacts from periodic maintenance activities such as "blow-down," whether these effects are likely to change as a result of the project and whether all feasible mitigation has been applied to reduce noise impacts of these periodic episodes. An evaluation of conformance with the City's noise standards for stationary uses should occur with respect to these episodic noise emissions.
- ✓ INSUFFICIENT INFORMATION to determine what predicted noise levels would be at the MBPP entrance. The entrance is adjacent to areas used for the annual Morro Bay Harbor Festival, various restaurants, a park and coastal access point, as well as the gateway to Morro Rock.
- ✓ INSUFFICIENT INFORMATION to evaluate the project's effect on octave band noise levels to demonstrate how the character of noise may change at sensitive receiver locations.
- ✓ INSUFFICIENT INFORMATION to evaluate the effects of short-term noise resulting from activities such as pile driving and demolition of the existing stack on sensitive receptors and public use of visitor serving facilities and recreational areas.
- ✓ INSUFFICIENT INFORMATION to evaluate the effects of short-term noise resulting from heavy truck/delivery vehicles using routes which affect noise sensitive receptors such as Morro Bay High School and surrounding residential areas.
- ✓ INSUFFICIENT INFORMATION to evaluate the effects of short-term, episodic, and long-term project noise (volume and character) on sensitive wildlife in the vicinity of the plant.
- ✓ INSUFFICIENT INFORMATION to evaluate the appropriate baseline for the purpose of impact analysis. There appear to be several differing baseline assumptions within the analysis.

SUMMARY OF KEY NOISE RELATED DATA ADEQUACY CONCERNS

- ✓ INSUFFICIENT ANALYSIS to allow a clear understanding of the existing, post-project and overall cumulative noise levels for each sensitive receptor, each affected visitor-serving area and each affected coastal recreational area. All assumptions related to the prediction and modeling of noise effects should be clearly stated and explained. Any "composite" measurements such as in Table 6.12-5 should identify whether the measurements refer to existing, post-project, and/or overall cumulative settings.
- ✓ INSUFFICIENT INFORMATION to determine the completeness of the stationary noise level analysis due to an incomplete reference in Section 6.12-9 of the AFC.
- ✓ INSUFFICIENT ANALYSIS of impacts and proposed mitigation.

SUMMARY OF KEY TRAFFIC/TRANSPORTATION DATA ADEQUACY CONCERNS

- ✓ INSUFFICIENT INFORMATION due to lack of data on daily trip generation by day of week and month of year.
- ✓ INSUFFICIENT INFORMATION due to lack of an assessment of seasonal variations in traffic volumes.
- ✓ INSUFFICIENT INFORMATION to evaluate the potential for project construction related traffic to overlap with traffic which may divert through Morro Bay during the Cuesta Grade Widening project.
- ✓ INSUFFICIENT INFORMATION to evaluate the effects of project construction related traffic on bicycle traffic, particularly in the area of Morro Bay High School and Morro Elementary School.
- ✓ INSUFFICIENT INFORMATION to evaluate project impacts based on City recommended thresholds of significance for traffic impacts.
- ✓ INSUFFICIENT INFORMATION to evaluate the method of trip distribution used in the AFC, i.e. the assumptions underlying the term "gravity factor" should be explained. If a mathematical model is used in the analysis it should be described.
- ✓ INSUFFICIENT INFORMATION to evaluate the potential for project construction traffic to conflict with peak tourist traffic periods throughout the year.
- ✓ INSUFFICIENT INFORMATION due to mischaracterization of LOS standards throughout the analysis.
- ✓ INSUFFICIENT INFORMATION to evaluate the adequacy of the "future construction traffic management plan."
- ✓ INSUFFICIENT INFORMATION due to lack of specific plans for the proposed bridge, bikeway, and any other proposed improvements.
- ✓ INSUFFICIENT INFORMATION due to the lack of a description and evaluation of the proposed method of enforcing specific shift and delivery schedules during construction.
- ✓ INSUFFICIENT INFORMATION due to use of an inaccurate cumulative project list.

SUMMARY OF KEY TRAFFIC/TRANSPORTATION DATA ADEQUACY CONCERNS

- ✓ INSUFFICIENT INFORMATION due to lack of specific plans showing how the existing coastal access points north and south of Morro Creek will function with the new proposed bridge and vehicular access proposed by the project.
- ✓ INSUFFICIENT INFORMATION due to lack of clear representation of the specific number of project related trips, AM, PM, weekday and weekend, which would be added to key impacted intersections throughout the City.
- ✓ INSUFFICIENT INFORMATION due to lack of any specific information concerning any traffic restrictions or effects which may occur during the demolition of the existing stack.
- ✓ INSUFFICIENT INFORMATION concerning the condition of existing roads and pavement which would be impacted by the project. No information concerning the method to mitigate impacts on roads and pavement.
- ✓ INSUFFICIENT INFORMATION concerning whether the fiber optic cables recently installed into the plant site comply with all applicable City permit requirements (see p. 6.11-9).
- ✓ INSUFFICIENT INFORMATION and analysis concerning the use of the back entrance" to the site for a.m. construction traffic. The City Engineer indicates that the 304 trips expected between 6 and 7 a.m. will peak closer to 7 a.m. resulting in traffic volumes exceeding 5 to 10 cars per minute. Due to the geometry of this entry and the potential for delays due to security checks at the gate, there is a potential for vehicle stacking onto Main Street, impeding flow in the southbound direction.
- ✓ INSUFFICIENT INFORMATION: Figure 6.11-11 "Project Peak Hour Volumes" does not appear to actually reflect the a.m. project traffic volumes. There also does not appear to be an LOS calculation for the northbound Highway 1/Main Street off-ramp for a.m. project volumes.
- ✓ INSUFFICIENT INFORMATION/ANALYSIS: In several cases it appears that project peak hour volumes will exceed the a.m. and p.m. peak hour street volumes. The level of service for project peak hour traffic should be indicated for all affected intersections and mitigation provided.
- ✓ INSUFFICIENT ANALYSIS of overall impacts and proposed mitigation.

SUMMARY OF KEY SOCIO-ECONOMIC DATA ADEQUACY CONCERNS

- ✓ INSUFFICIENT INFORMATION due to a lack of a "With/Without" Analysis. The AFC does not provide any with/without analysis of project impacts for two key issues: tourism/recreation and local property values. It is impossible to discern from the AFC how the current plant has affected tourism/recreation and property values in the past and how continuation of the plant's operation as it currently is configured, or with the proposed modifications, would affect these key community features in the future. This is particularly important because the present plant pre-dates CEQA and consequently no such analysis was conducted at the time it was constructed in the early 1950s.
- ✓ INSUFFICIENT INFORMATION due to incomplete tax revenue estimates. The substantiating data needed to verify that these tax revenue estimates are reasonable is not provided. Specific areas of concern are the following:
 1. Estimates of assessed valuation and property taxes;
 2. Natural gas pipeline transportation franchise fee payments;
 3. Sales taxes from purchases of local materials and services during construction and operation;
 4. Indirect local sales and other taxes paid by construction and operations workers employed at the site; and
 5. School district impact fees.
- ✓ INSUFFICIENT INFORMATION to demonstrate that environmental justice issues are adequately analyzed---in particular, any project impacts on availability of affordable housing for low/moderate income residents during the 3-4 year development period.
- ✓ INSUFFICIENT INFORMATION to determine the socio-economic effects of project visual impacts---visual analysis methodology is not based on observer preferences
- ✓ INSUFFICIENT INFORMATION to determine the socio-economic effects of project traffic impacts on tourism.
- ✓ INSUFFICIENT INFORMATION to determine whether any cumulative socio-economic effects related to Fiber Optic Cable Projects in combination with the Duke AFC could be significant.
- ✓ INSUFFICIENT CONSIDERATION OF THRESHOLDS OF SIGNIFICANCE: The AFC includes very limited discussion of thresholds of significance for impacts on tourism and property values which should be expanded based on the City's analysis of socio-economic issues related to the project.

SUMMARY OF KEY DATA ADEQUACY CONCERNS RELATED TO PROJECT ALTERNATIVES

- ✓ INSUFFICIENT INFORMATION to be able to objectively evaluate the relative differences in impact levels between project alternatives
 - The baseline conditions with respect to operating scenarios and resulting operating characteristics, i.e. noise, visual, water use, air emissions, etc., need to be specified in detail for each feasible project alternative to allow a meaningful evaluation.
 - The effect of each proposed alternative on the remaining useful life of the MBPP facility should be discussed and evaluated .
 - The relative public benefits of each proposed alternative should be considered in the analysis.
- ✓ INSUFFICIENT INFORMATION regarding potential off-site project alternatives. The off-site tank farm was not evaluated as a potential alternative. Other locations east of the existing plant site with the potential for reasonable access to basic infrastructure necessary to operate the plant should be considered.
- ✓ INSUFFICIENT INFORMATION to allow for a reasonable, objective evaluation of the various on-site alternatives considered in the AFC. Cost is cited as a major factor in eliminating various on-site alternatives from further consideration; however, no supporting information regarding costs is provided. No visual assessments are provided for any of the potential on-site alternatives considered.
- ✓ INSUFFICIENT INFORMATION concerning Alternative Site 2 and 3, in particular: no data or evidence is provided to support the conclusion that a greater visual impact would occur if the existing stack for Units 1-2 is replaced with new stacks for the project and all generating units are consolidated at the existing plant site. No explanation is provided why it would be necessary to retain the existing steam turbine for units 1-2 if the new units were located in its place. No justification is provided for the statement that increased costs are one of the factors precluding consideration of this site. No credible explanation is offered as to why consolidation of all generating units wouldn't reduce visual impacts.
- ✓ INSUFFICIENT INFORMATION concerning a possible on-site alternative which involves phased replacement of all existing facilities. No discussion of alternative use of City wastewater as a portion of plant cooling waters.

SUMMARY OF KEY DATA ADEQUACY CONCERNS RELATED TO CUMULATIVE EFFECTS

- ✓ INSUFFICIENT INFORMATION to be able to objectively evaluate the overall, cumulative effects of the project.

The past development and related effects of the existing power plant facility should be considered when evaluating the significance of overall cumulative effects related to the project. Since the existing facility was constructed prior to environmental review requirements under CEQA, and the project is considered a major modification to the existing facility, it is necessary to evaluate the past effects of the facility in combination with the present and expected future effects of the project to fully assess cumulative effects. This is particularly the case given that the previous development of the site is repeatedly cited as justification for locating the new project at the MBPP. Clearly, it is unlikely that the new plant would be located as proposed but for the existence of the existing plant and related facilities---which were never comprehensively evaluated under CEQA.

Cumulative project should include all planned State Park project and CalTrans projects within and adjacent to the City limits within the timeframe of project development. Cumulative projects should also consider any proposed changes to the status of existing power plants within the County and Statewide. A cumulative impact analysis should be provided to address the broader effects regionally and across the state of all pending power plant projects. The proposed project's incremental contribution to these impacts should be identified and evaluated.

SUMMARY OF KEY MISCELLANEOUS DATA ADEQUACY CONCERNS

INSUFFICIENT INFORMATION

- ✓ P. 2-9: Explain how it can be concluded that the project would not be located outside areas designated for power plant expansion by the Coastal Commission without providing a detailed map showing the designation/non-designation boundary as it crosses the site.
- ✓ P. 2.12 Explain why the tank farm decommissioning is not being considered as part of the AFC?
- ✓ P. 2.13 Explain what the environmental effects would be of the new proposed on-site gas compressor, particularly with respect to noise and safety.
- ✓ P. 2-19 Confirm that all impact levels evaluated in the AFC use the operating scenario identified here: "...project will be operated up to 7 days per week, 24 hours per day."
- ✓ P. 2-20 Provide details concerning the modifications noted regarding the intake structures.
- ✓ P.2-24 Discuss/show whether the proposed SCR equipment will have any effect on the outward appearance of the plant or its plumes.
- ✓ P. 4-4 No provision is made for unexpected permanent facility closure. No provisions for site restoration/decommissioning are proposed. No plan is proposed for permanent facility closure.
- ✓ Address the impacts of noise and air emissions on sensitive birds and wildlife species.
- ✓ Explain the 150 meter buffer identified in 6.6-20. Identify its purpose, use, ownership and area.

SUMMARY OF KEY AIR QUALITY DATA ADEQUACY CONCERNS

- ✓ INSUFFICIENT INFORMATION :
- ✓ 6.2 Explain 6.2.5.3.2 regarding fumigation impacts on adjacent areas, particularly Morro Rock and adjacent beaches and residential areas (Morro Dunes RV Park).
- ✓ Explain why it is appropriate to use a period which includes burning of fuel oil to represent baseline conditions. Explain why credit is sought for past discontinuance of fuel oil burning? Is fuel oil burning currently considered an option for future plant operations?
- ✓ Explain the significance of the substantial increases in CO, VOC, and PM10 as a result of the project.
- ✓ Show how the conclusions of the impact analysis would have differed if the baseline period were 96-98.
- ✓ Under the no project alternative, explain what emission levels would be with all required retrofits and also considering the likely operating levels and remaining useful life of the facility compared to the proposed project.
- ✓ Explain why the operating scenario for Units 3-4 in regard to generation, fuel consumption and emissions in 94-96 is expected to be representative of future operating conditions given the restructuring of the electrical generation market. Explain in layman's terms what the likely operating scenarios for the plant could be. Explain how the quantification of the changes in emissions with application of new technology to units 3-4 accurately shows expected pollutant levels likely to occur in the future? Explain/show what emission levels would be if plant operating levels differed by 10%, 20%, 50% from the levels predicted in the AFC.
- ✓ Address the effects of increased emissions on flora and fauna in the area.
- ✓ Demonstrate that projected increases in criteria pollutants would be mitigated to the maximum extent feasible.
- ✓ What is the basis for assuming that units 1-2 would continue to operate at the same levels in the post-deregulated market as they did in 94-96?
- ✓ P. 6.2-70 indicates that a cumulative air quality impact analysis has not been performed.

SUMMARY OF KEY AIR QUALITY DATA ADEQUACY CONCERNS

Explain.

- ✓ Explain the concept of "off-set," their composition, source, how obtained, and whether any priority exists related to obtaining offsets in close proximity to the site.
- ✓ Address the effects of fumigation on the cultural, visual, historical, geological, and biological significance of Morro Rock.

SUMMARY OF KEY WATER RELATED DATA ADEQUACY CONCERNS

✓ INSUFFICIENT INFORMATION:

- ✓ 6.5-16: Identify the 100 year flood elevations for the site and demonstrate compliance with City Flood Plain Management Ordinance Requirements.
- ✓ 6.5-2.3: Address the potential cumulative impact of the project's intake and discharge of sea water on sand deposition patterns within the bay and associated navigational channels.
- ✓ 6.6-104: Impingement studies at MBPP appear to be missing.